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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/813,001      | 03/21/2001  | Jeffrey P. Grundvig  | GRUNDTVIG 25-14     | 4087             |

7590 07/06/2004  
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EXAMINER

CHO, UN C

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2682

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DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/813,001

**Applicant(s)**

GRUNDVIG ET AL.

**Examiner**

Un C Cho

**Art Unit**

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 5, 8 - 10 and 13 is/are rejected.
- 7) ☒ Claim(s) 7 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Regarding claims 5 and 10, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 5, 8 – 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trost et al. (US 2002/0151275) in view of Jasinski et al. (US 5,142,279).

Regarding claim 1, Trost teaches a wireless piconet front end including a transceiver (Fig. 2A, 213) (Trost, Paragraph 0050, lines 1 – 2). However, Trost fails to teach a frequency offset history table adapted to contain a plurality of

entries each corresponding to a past frequency offset of a device in a piconet wherein an expected center frequency of a signal received by the receiver portion is adjusted based on one of said plurality of entries in said frequency offset history table corresponding to a device transmitting said signal. In contrast, Jasinski teaches a frequency offset table adapted to contain a plurality of entries each corresponding to a past frequency offset (Jasinski, Fig. 7) wherein an expected center frequency of a signal received by the receiver portion is adjusted based on one of the plurality of entries in the frequency offset table corresponding to a device transmitting the signal (Jasinski, Col. 13, lines 22 – 32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Jasinski to Trost to provide a paging system in which each pager within a batch of addressed pagers is capable of determining which message within a batch of messages is intended for such pager.

Regarding claim 2, Trost as modified by Jasinski teaches a local oscillator (Jasinski, Fig. 6, 860) to control a transmit frequency of the transmitter portion (Jasinski, Col. 18, lines 59 – 64) of the wireless piconet front end (Trost, Paragraph 0050, lines 1 – 2).

Regarding claim 3, Trost as modified by Jasinski teaches that the wireless piconet front end is a BLUETOOTH front end (Trost, Paragraph 0050, lines 1 – 2).

Regarding claim 4, Trost teaches a method for receiving in a receiving piconet device an information packet transmitted from a transmitting piconet device within a piconet network (Trost, Paragraph 0054, lines 9 – 17). However, Trost fails to teach determining a center frequency of a channel used to transmit at least a portion of the information packet, looking up a past frequency offset value of the transmitting piconet device and adjusting a center frequency of an expected frequency of the information packet in a receiving portion of the receiving piconet device. In contrast, Jasinski teaches determining a center frequency of a channel used to transmit (Jasinski, Col. 18, lines 59 - 64), looking up a past frequency offset value (Jasinski, Col. 18, lines 41 - 45) and adjusting a center frequency of an expected frequency of the information in a receiving portion (Jasinski, Col. 13, lines 22 – 32). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teachings of Jasinski to Trost to provide a paging system in which each pager within a batch of addressed pagers is capable of determining which message within a batch of messages is intended for such pager.

Regarding claim 5, Trost as modified by Jasinski teaches altering a local oscillator of the receiving device (Jasinski, Col. 18, lines 59 – 64) so that a transmit frequency of a transmitter of the receiving device is offset by an amount approximately equal and opposite to a past amount of frequency offset calculated from a past information received from the transmitting device (Jasinski, Col. 18, lines 41 – 45).

Regarding claim 8, Trost as modified by Jasinski teaches that the receiving and transmitting devices are BLUETOOTH devices (Trost, Paragraph 0050, lines 1 – 2).

Regarding claim 9, the claim is interpreted and rejected for the same reason as set forth in claim 4.

Regarding claim 10, the claim is interpreted and rejected for the same reason as set forth in claim 5.

Regarding claim 13, the claim is interpreted and rejected for the same reason as set forth in claim 8.

6. Claims 6 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Trost in view of Jasinski as applied to claim 4 above, and further in view of Ericsson et al. (US 5,884,178).

Regarding claim 6, Trost as modified by Jasinski teaches the limitations of claim 4. However, Trost as modified by Jasinski fails to teach calculating an actual frequency offset based on the received information packet. In contrast, Ericsson teaches that the frequency offset is calculated for each received burst (Ericsson, Col. 2, lines 17 – 21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Ericsson to Trost and Jasinski to provide a method for accurately estimating the speed of a mobile station in a cellular communication system through frequency offset calculation.

Regarding claim 11, the claim is interpreted and rejected for the same reason as set forth in claim 6.

***Allowable Subject Matter***

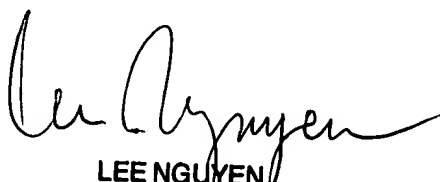
7. Claims 7 and 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C Cho whose telephone number is (703)305-8725. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703)308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
LEE NGUYEN  
PRIMARY EXAMINER

Un C Cho UC 5/25/04  
Examiner  
Art Unit 2682